

ALLOTMENT MANAGEMENT PLAN

FOR THE

**CEDAR SPRINGS, TWO TROUGHS AND
SEVENTY-SIX ALLOTMENTS**

SAFFORD RANGER DISTRICT

CORONADO NATIONAL FOREST

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INTRODUCTION

A National Environmental Policy Act (NEPA) analysis of livestock grazing on the Cedar Springs, Two Troughs and Seventy-Six Allotments was completed January 2022. This allotment management plan (AMP) implements the 2022 NEPA decision and is part of the terms and conditions of the Cedar Springs, Two Troughs and Seventy-Six Allotments term grazing permit.

The Cedar Springs, Two Troughs and Seventy Six allotments are located on the Safford Ranger District approximately 20 miles southwest of Safford, Arizona. All three allotments are located on the west side of the Pinaleño Mountains. They are bound by the Klondyke Road on the north and the Bonita-Klondyke Road on the west.

The three grazing allotments are contiguous and encompass approximately 15,500 acres. All three allotments have similar vegetation types including semi-desert grasslands at the lower elevations, transitioning to Interior Chaparral communities (3000 to 6000 feet), and Madrean Encinal Woodlands at the higher elevations (3,600 to 6,500 feet). Topography at the lower elevations is gently rolling foothills, bisected by several steep canyons at higher elevations. The majority of suitable and capable² rangelands are located on the gentler terrain at the base of the mountain range below 6,500 feet. Steep slopes and rough topography render higher elevations in the project area unsuited and not capable for grazing.

The Cedar Springs, Two Troughs and Seventy-Six Allotments are currently permitted to Bonita Cattle, LLC. Cedar Springs is permitted for 100 cow/calf pairs from 11/01-4/30 or 500 AUMs. Two Troughs is permitted for 150 cow/calf pairs from 11/01-4/30 or 750 AUMs. Seventy-Six is permitted for 285 cow/calf pairs from 11/1-04/30 or 1,425 AUMs.

Standards and Guidelines

The 2018 Forest Plan state the following Standards, Guidelines and Desired Conditions for Range Management on the forest and they pertain to the management of the Cedar Springs, Two Troughs and Seventy-Six Allotments.

Desire Conditions for the Range Program are:

- Domestic livestock grazing does not move the landscape away from the desired composition and structure of plant communities. Rangeland ecosystems are diverse, resilient, and functioning with a healthy, sustainable landscape in the face of a changing climate. Areas that are grazed have stable soils, functional hydrology, and biotic integrity, while supporting healthy, diverse populations of native wildlife.
- By supporting livestock production on working landscapes with an extensive, low impact land use, the Coronado National Forest contributes to preserving large areas of unfragmented open space. These open spaces sustain biological diversity

and ecological processes and help to preserve the rural cultural heritage of southeastern Arizona and southwestern New Mexico.

Standards for the Range Program are:

- New issuance, renewal, modification, and management of grazing permits shall comply with the Coronado National Forest's "Stockpond Management Plan."

Guidelines for the Range Program are:

- Forage utilization should be based on site-specific resource conditions and management objectives, but in general should be managed at a level corresponding to light to moderate intensity (15-45% of current year's growth). Exceptions may be allowed in order to meet objectives related to scientific studies, fuels reduction, invasive plant control, or other targeted grazing or site-specific objectives.
- Burned areas should be given sufficient deferment from grazing, especially during the growing season, to ensure plant recovery and vigor.
- Construction or reconstruction of livestock fencing and replacement of nonpermeable fencing where wildlife movement is restricted should be consistent with the appropriate state wildlife agency standards for safe passage of wildlife and/or species-specific fencing guidelines developed at the local or regional level.
- Grazing management practices should be designed to maintain or promote ground cover that will provide for infiltration, permeability, soil moisture storage, and soil stability appropriate for the ecological zone. Additionally, grazing management should retain ground cover sufficient for the forage and cover needs of native wildlife species.
- Within riparian areas, structures used to manage livestock should be located and used in a way that does not conflict with riparian functions and processes.
- Treatments for restoring rangelands should emphasize the use and perpetuation of native plant species.
- Grazing intensity, frequency, occurrence, and period should provide for growth and reproduction of desired plant species while maintaining or enhancing habitat for wildlife.

Guidelines for Riparian Areas that apply to the Range Program are:

- Management activities should only be allowed in riparian areas if soil function and structure, hydrologic function and riparian plant communities (except noxious and/or invasive plants) are kept the same or improved.

Guidelines for Constructed Waters (developed springs, wells, stock ponds) that apply to the Range Program are:

- Wildlife escape ramps should extend to the bottom and near the edge of aboveground constructed waters, and at an angle to avoid entrapment of wildlife in constructed water facilities.
- Artificial waters constructed for livestock should be designed and/or retrofitted to provide a year-round drinking and habitat resource for native wildlife.
- Overflow should be diverted to allow for soil moisture recharge and creation or maintenance of wetland habitat features.

Guidelines for Natural Water Sources (springs, small streams and seeps) that apply to the Range Program are:

- Projects in upland habitats adjacent to streams should be designed to minimize input of sediment to streams.
- Water quality, quantity, soil function and structure, and wildlife habitat (including aquatic species habitat) should be protected or enhanced at natural springs and seeps.
- Management activities should not impair soil moisture recharge at outflows of natural water sources.
- Fences constructed around natural waters should allow bats and other desirable wildlife to pass through unharmed

ESA Section 7 Consultation

Management direction applies as specified in the September 27, 2019 Amended Biological Assessment for Coronado National Forest Livestock Grazing Program and the September 30, 2021 Biological Opinion on Ongoing Grazing on the Coronado National Forest.

MANAGEMENT STRATEGY

Grazing would be authorized on the allotment under the following terms and conditions.

- Duration and timing of grazing – The maximum duration of use on the Cedar Springs, Two Troughs and Seventy-Six Allotments will be 6 months (11/01 to 04/30). This season of use would utilize grass plants during the dormant period so plants would still have full growing season rest each year. Timing and sequence of pasture moves would be based on monitoring of range readiness, livestock nutritional needs, ecological condition, and forage utilization.

- Intensity of grazing – The permitted numbers for all three allotments are listed in Table 1 below. The number and class of livestock and the season of use would be allowed to vary in response to resource conditions and management objectives. Resource conditions that would affect management decisions may include but not be limited to precipitation, forage production, water availability and previous annual or seasonal utilization levels. Annual use will not exceed the total AUMs authorized or the season of use identified in the permit. Changes would be documented and authorized annually in the annual operating plans.

Table 1. Permitted numbers and grazing management by allotment

Allotment	Management System	Animal Unit Months (AUMs)	Cattle Numbers-Season
Two Troughs	1-pasture winter seasonal	500	100 cow/calf - 11/01-4/30
Cedar Springs	1-pasture winter seasonal	750	150 cow/calf - 11/01-4/30
Seventy Six	1-pasture winter seasonal	1,425	285 cow/calf - 11/01-4/30

- Forage use would be managed at a level corresponding to light to moderate intensity (30-45%)^{1, 2} to provide for grazed plant recovery, increased plant vigor, and retention of herbaceous litter to protect soils and provide forage and herbaceous cover for wildlife. Consistent patterns of utilization in excess of 45% of key species in key areas would be used as a basis to modify management practices or take administrative actions necessary to reduce utilization in subsequent grazing seasons.

Adaptive management will be the guiding strategy on the Cedar Springs, Two Troughs and Seventy-Six Allotments. This approach is intended to provide flexibility to adapt management to changing circumstances and resource conditions. If monitoring indicates

¹ Based on review of numerous grazing intensity studies, Holechek (1999, 2004) identifies light to moderate grazing as 32-43% average use of primary forage species. These averages are based on pasture-wide utilization averaged over time. The Forest Service monitors utilization based on the use of key forage species in key areas. Key areas are selected to be representative of management effectiveness over the entire pasture. For the purposes of monitoring, an annual use guideline of 30%-45% of key species in key areas will be used to monitor use in all pastures, which, combined with growing season rest or deferral, should insure pasture-wide average use of less than 45%.

² Grazing intensity is the percentage of forage produced in the current season, to the date of the measurement that has been consumed or trampled by animals. It is a comparison of the amount of herbage left compared with the amount of herbage that has been produced to the date of the measurement. Grazing intensity is measured at the end of a grazing period. Grazing intensity differs from utilization because it does not account for subsequent growth of either the ungrazed or grazed plants. May also be referred to as “seasonal utilization” or “relative utilization”. Descriptors for grazing intensity levels as determined at the end of the grazing period (FSH, R3-2209.13-2016-1). Light to non-use 0-30 percent, Conservative 31-40 percent, Moderate 41-50 percent, Heavy 51-60 percent, Severe 61+ percent.

that desired conditions are not being achieved, the Forest Service and permittee will cooperatively modify management practices. Modifications may include the number of livestock authorized in annual operating instructions (AOI), dates for grazing, class of animal, pasture rotations, and grazing systems. Any changes will not exceed the limits for timing, intensity, duration, and frequency analyzed in the 2022 Environmental Assessment (EA).

Numbers authorized in the AOI may fluctuate from year to year based on such variables as precipitation patterns and resulting forage production, changes in the grazing system or class of animal, potential impacts of wildfire, and the permittee's performance in implementing proper grazing practices as indicated in the AMP. Actual rotation dates are based on ecological conditions, water availability and utilization within each pasture and Forest Service/permittee goals. Rotation dates are developed by the permittee and Forest Service Range Staff and authorized in the AOI. Records of livestock numbers, movement dates, shipping records, and rainfall dates and amounts will be kept by the permittee and will be provided to the USFS annually.

MANAGEMENT PRACTICES AND DESIGN FEATURES

To mitigate resource impacts, the following measures would be implemented. These practices have been demonstrated to be successful when used on similar projects and are considered effective at reducing environmental impacts. They are consistent with applicable Forest Plan standards and guidelines and Forest Service Best Management Practices. Implementation of the mitigation measures and design criteria is intended to reduce and/or minimize environmental impacts.

Soil, Hydrology, Vegetation and Watershed – The objective is to mitigate effects of livestock grazing and facility construction through the use of Best Management Practices (FSH 2509.22) and adaptive management. Practices include but are not limited to the following:

- Utilization of key upland herbaceous forage species in key areas would be managed to achieve the goal of light to moderate grazing as a pasture average. The objective is to protect plant vigor, increase herbaceous residue needed for soil protection and to increase herbage producing ability of forage plants. A utilization guideline of up to 45% use of key species in key areas would be used to achieve this objective.
- Management practices would be used to achieve proper distribution or lessen the impact on sensitive areas. Practices include herding, salting and controlling access to waters. Salt would be placed away from roads and one quarter mile from waters. Placement of liquid or bulk supplements would require prior approval of the District Ranger.

- Improvement construction and maintenance in the proposed action would be carried out utilizing USFS Best Management Practices. This would mitigate any effects to soil and reduce the measurable effects. These practices include the construction of water bars or erosion control structures, and installation of appropriate signage where necessary to prevent off-road travel along pipeline routes.
- Road use and construction activities for the installation of pipeline, drinkers, and storage tanks for the project will be conducted such that wind erosion potential will be minimized, as needed. Possible mitigation may include wetting down or applying dust suppressants to the road surface and covering or wetting down piles of excavated soil. Excavation will be limited to the minimum required for the project.

Wildlife – the objective is to mitigate impacts to wildlife from livestock grazing and from disturbance associated with maintenance and construction of range facilities.

- All water developments would include wildlife access and escape ramps and would be designed for improved access for all wildlife species. Waters would be kept available to wildlife year-round. Wildlife escape ramps should extend to the bottom and near the edge of aboveground constructed waters, and at an angle to avoid entrapment of wildlife in constructed water facilities.
- Avoid the removal of Yucca or Agave to conserve nectar sources for bats.
- This project will comply with Coronado Stock Pond Management Plan.
- Fences constructed around natural waters should allow bats and other desirable wildlife to pass through unharmed.
- Water quality, quantity, soil function and structure and wildlife habitat should be protected and enhanced at natural springs and seeps.
- This project will meet the applicable Wildlife Conservation Measures agreed to in the Biological Assessment and Biological Opinion on Ongoing Grazing on the Coronado National Forest (USFS 2019, USFWS 2021). Species-specific measures include:
 - Mexican spotted owl (MSO): Within protected and recovery habitat as described in the MSO 2012 Recovery Plan, forage utilization is maintained at conservative levels, i.e., light to moderate grazing intensity.
 - Yellow-billed cuckoo (YBCU): If the construction or repair of range improvements might disturb breeding YBCU, then that activity will be avoided within the YBCU breeding season (June 1-September 30).

Cultural Resources – The objective is to protect cultural resources (historic and archaeological sites and traditional cultural properties) from direct or indirect impacts caused by ground-disturbing activities associated with the construction of range facilities and to monitor the effects of cattle grazing on sites to ensure that adverse effects are not occurring. In general, these measures include the following:

- All new proposed range facilities would be surveyed by qualified personnel for cultural resources prior to any ground-disturbing activities. Facilities would be built or modified to avoid impacts to sites.
- If unrecorded cultural resources are discovered during the course of project implementation, activities would cease and the Forest or District Archeologist would be notified.
- Proposed facilities are located to avoid concentrations of livestock on identified cultural resource sites.
- No salting would occur within or adjacent to identified cultural resource sites.
- If impacts from grazing (e.g. excessive trampling, cattle rubbing against and knocking down standing features) are determined to be impacting cultural resource sites, measures would be taken (e.g. fencing) to protect them.

Invasive Weeds – The objective is to minimize the introduction and establishment of invasive weeds being established on National Forest System lands.

- Equipment would be cleaned prior to moving between units known to be infested with invasive plants and other units that are free of such plants.

RANGE IMPROVEMENTS

The lack of reliable water has been the limiting factor on all of the allotments and several improvements are proposed to rectify the situation and help to achieve desired conditions. In order to improve livestock distribution and pasture reliability, several structural improvements are proposed as described in this section. Maintenance of existing improvements would continue as needed. The responsibility for maintenance of range improvements is assigned to the permittee(s) in the terms and conditions of each grazing permit (FSM 2244.03). On an annual basis, responsibilities for repair and maintenance of existing improvements would be identified in the AOI. These improvements are proposed in the context of adaptive management, meaning they have been identified as possible practices to assist in the achievement of desired conditions.

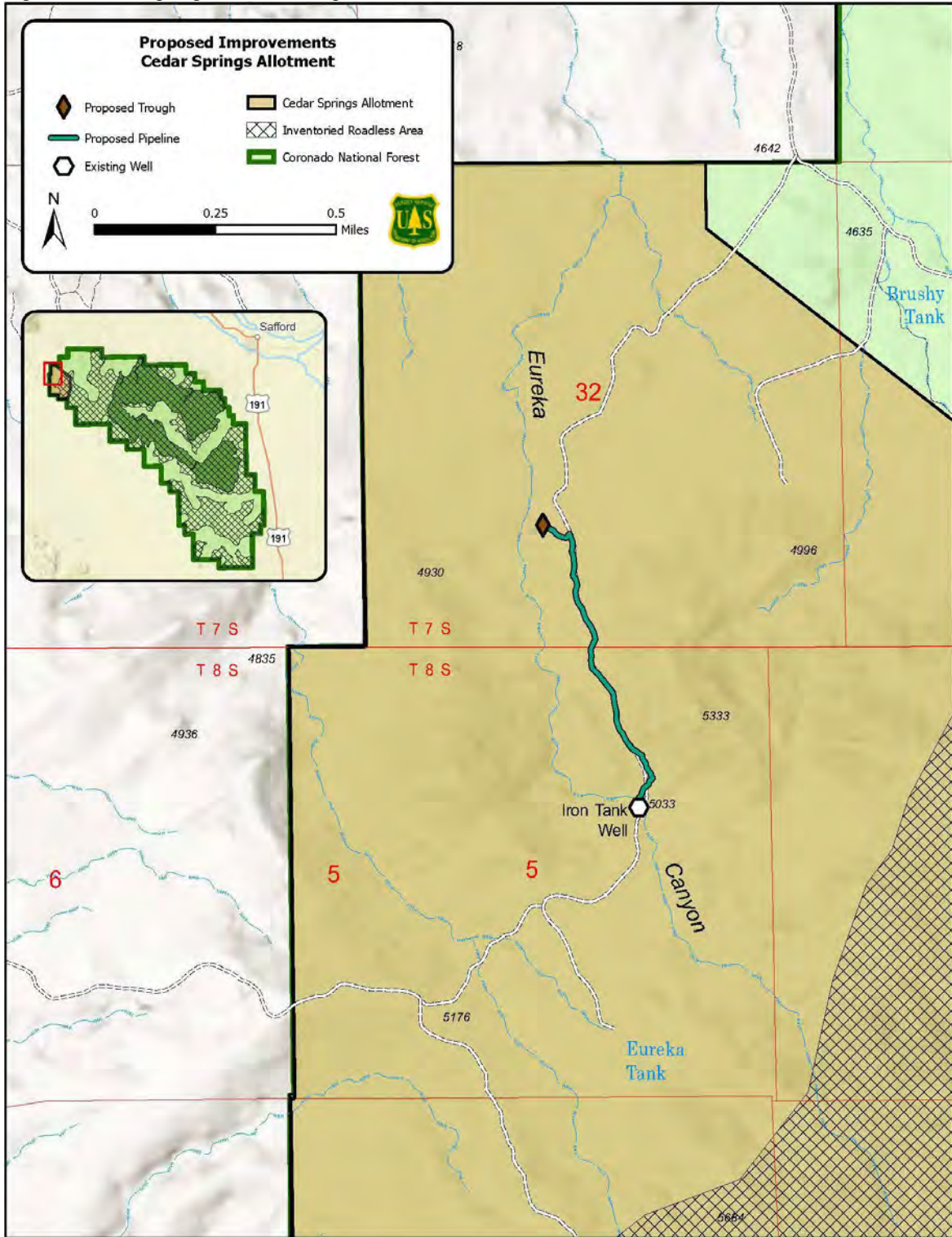
Two Troughs:

1. A new polypipe water pipeline would be installed from the existing Two Trough Well #410014 heading north along the Hold-Out Canyon for approximately 3 miles. The legal location of the proposed improvement is T7S R22E Sections 22 and 27. See figure 1.
2. A new additional polypipe pipeline would run from the existing Two Troughs Well and installed along the Forest Road #6609 up to a 1/2 mile to a drinker and storage tank. See figure 1.

Figure 1. Two Troughs Allotment improvements:

1.5 miles to a new water facility with at least one drinker and storage tank located to the west of the road. See figure 2.

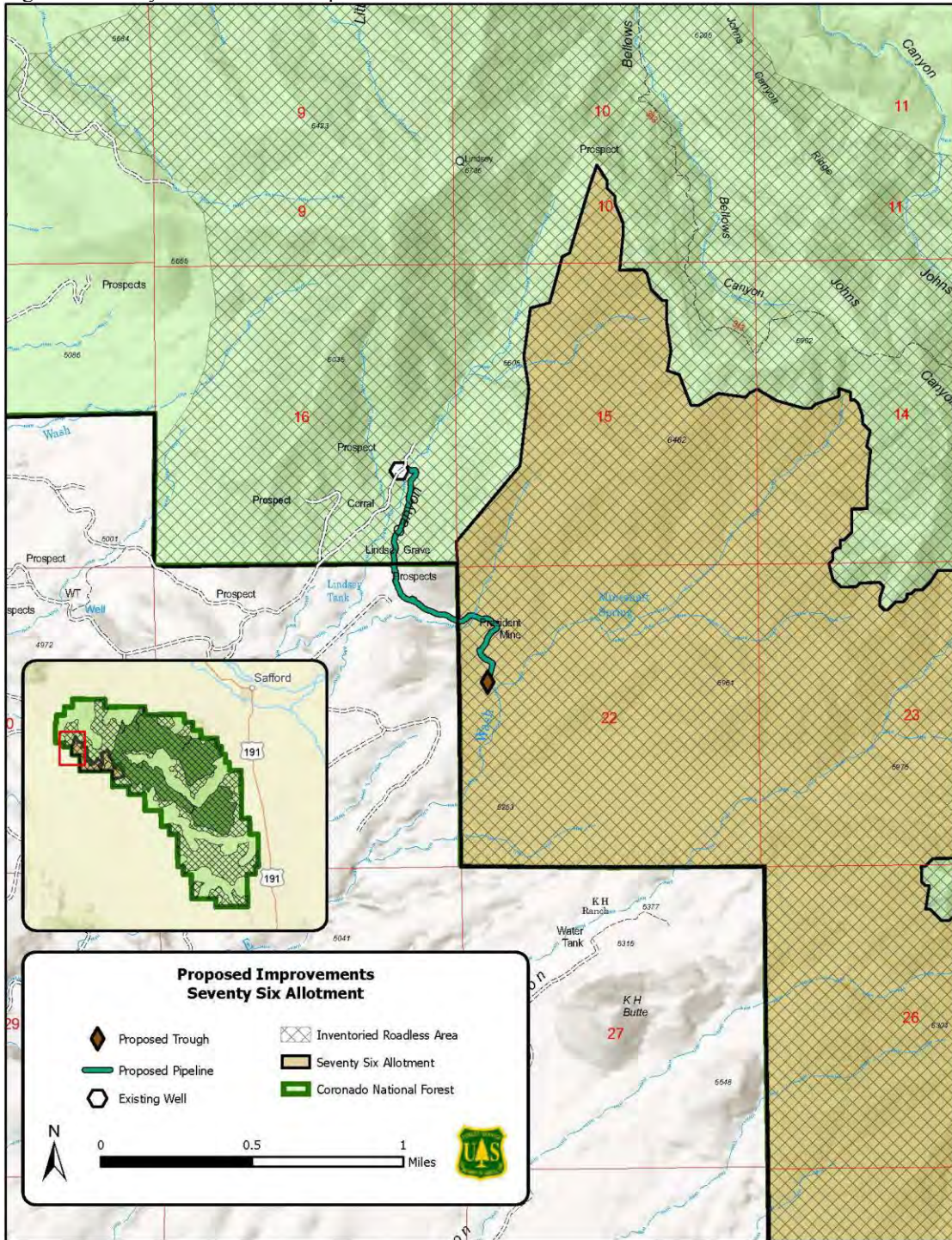
Figure 2. Cedar Springs Allotment improvements:



Seventy-Six:

1. A new polypipe pipeline would be installed from Lindsay Well #409009 for approximately 2.5 miles to the southeast on to the Seventy-Six Allotment where a new water facility would be located, including a drinker and storage tank.

Figure 3 Seventy-Six Allotment Improvements:



Maintenance of all structural improvements listed in the term grazing permit is the responsibility of the permittee. All improvements must be kept in a serviceable condition.

FIRES

One of the goals of the Forest Service is to re-establish the role of fire on the landscape. When planning prescribed fires, the permittee will be consulted, so that they will have time to make adequate preparations for the livestock operation, and so the rotation can be altered to allow fine fuels to accumulate. Burned areas will be evaluated site specifically in accordance with the Regional Supplement to FSH 2209.13 – 2015-1, Section 19.2 Considerations for Re-Stocking and Management of Grazing Allotments Post Wildfire and Other Disturbances. The site-specific analysis will guide grazing management to ensure proper vegetation and soil recovery.

MONITORING

The objective of monitoring is to determine whether management is being properly implemented and whether the actions are effective at achieving or moving toward desired conditions. Monitoring is necessary under the adaptive management strategy proposed to implement timely and effective management changes. The Safford Ranger District Range Program would be primarily responsible for monitoring. Active cooperation and participation by the permittee would be encouraged.

Effectiveness monitoring includes measurements to track condition and trend of upland and riparian vegetation, soil, and watersheds. Monitoring would be done following Sampling Vegetation Attributes procedures described in the Interagency Technical Reference (1996) and the Region 3 Rangeland Analysis and Training Guide. This data would be interpreted to determine whether management is achieving desired resource conditions, whether changes in resource condition are related to management and to determine whether modifications in management are necessary. Effectiveness monitoring typically occurs every three to five years but would occur at least once over the ten-year term of the grazing authorization.

Implementation monitoring would occur yearly and may include inspection reports, forage utilization measurements in key areas, livestock counts and facilities inspections. Utilization measurements are made following procedures found in the Interagency Technical Reference (1999) and with consideration of the Principles of Obtaining and Interpreting Utilization Data on Southwest Rangelands (2007). Utilization would be monitored on key forage species, which are perennial grasses that are palatable to livestock. At a minimum, monitoring would include use in key areas but may include monitoring outside of key areas. Utilization may be monitored both during the grazing season (seasonal use) and at the end of the growing season (annual utilization).

Utilization guidelines are not intended as inflexible limits. Utilization measurements can indicate the need for management changes prior to this need being identified through

long-term monitoring. Utilization data would not be used alone but would be used along with reporting actual use (the number of AUMs grazed), climate and condition/trend data, to determine stocking levels and pasture rotations within the Cedar Springs, Two Troughs and Seventy-Six grazing allotments for future years.

The Safford District Range Staff Officer and the permittees would be responsible for monitoring livestock grazing utilization. Permittees would be encouraged to participate in monitoring activities. Records of livestock numbers and movement dates would be kept by the permittees and would be provided to the District Range Staff.